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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,412	08/14/2001	Norman Ken Ouchi		9132

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EXAMINER	
JARRETT, SCOTT L	
ART UNIT	PAPER NUMBER
3623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/929,412	OUCHI, NORMAN KEN	
	Examiner	Art Unit	
	Scott L. Jarrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *80-99* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *80-99* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1 .17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.1 14, and the fee set forth in 37 CFR 1 .17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.1 14. Applicant's submissions filed on December 25, 2006, February 7, 2007 and February 21, 2007 have been entered.

Applicant's amendment, filed February 21, 2007, canceled claims 1-79 and added new claims 80-99. Currently claims 80-99 are pending.

Response to Amendment

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 80-81, 83-89, 91-95 and 97-99 are rejected under 35 U.S.C. 102(b) as being anticipated by Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editor in the Context of Distributed Groupware-Databases (1994).

Regarding Claim 80 Ott teaches a system and method for generating a workflow route in real-time from predefined workflow sub-routes comprising (partially standardized, semi-structured/ad-hoc workflow; Paragraph 1, Page 13; Paragraph 1, Page 82; Paragraph 1, Page 90; Figures on Pages 129-131; Figure 2-5):

- defining and storing a set of local sub-routes (sub-workflows, modules, components, templates) in a library (repository; Paragraph 1, Page 2; Paragraph 2, Page 15; Last Paragraph, Page 16; Bullets 3-4, Page 26; Paragraph 2, Page 40; Last Paragraph , Page 162; Paragraph 2, Page 105; Figure on Page 114) wherein each local sub-route comprises a sequence of nodes to perform a customer request (Section 2.22 Semi structured Processes, Pages 15-16; Figures 2.8, 6.8);

- defining a composite route (workflow) comprising initial and final nodes wherein the initial node is an adaptive node assigned to a (key) user (agent, workgroup, role, team manager) and provides a sub-route selection function (open team tasks/nodes,

entry/exit points; Paragraph 1, Page 16; Paragraph 1, Page 41; Paragraph 1, Page 71; Paragraphs 1-2, Page 74; Figures 2.10, 5.4);

- executing the composite route in the workflow starting with the initial adaptive node (task/node) wherein the user selects an appropriate sub-route (task, node, module) from a library of sub-routes using the sub-route selection function ("Then the workflow author inserts numerous nodes into this cluster window and connects them to other nodes inside and outside this cluster. This further step does not necessarily have to be done by the same workflow author. It would be even more likely that another person would take over this task, since this employee would be better informed about the special tasks which have to be processed in this subworkflow.", Paragraph 1, Page 90; Paragraph 1, Page 16; Paragraph 2, Page 40; Figures 5.4, 6.5; Figures on Pages 129-131);

- automatically modifying the composite route, by the adaptive node, in response to the user's selection by inserting a copy of the selected sub-route into the composite route and connecting the end of the selected sub-route to the final node of the composite route (copy, copy-allocate, copy-merge; Bullet 3, Page 26; Bullet 6, Page 29; Paragraph 1, Page 42; Last Paragraph, Page 44; Paragraph 1, Page 76; Last Paragraph, Page 77; Figure 6-1); and

- executing the selected sub-route until the composite route's final node is performed (Section 2.2, Pages 15-16).

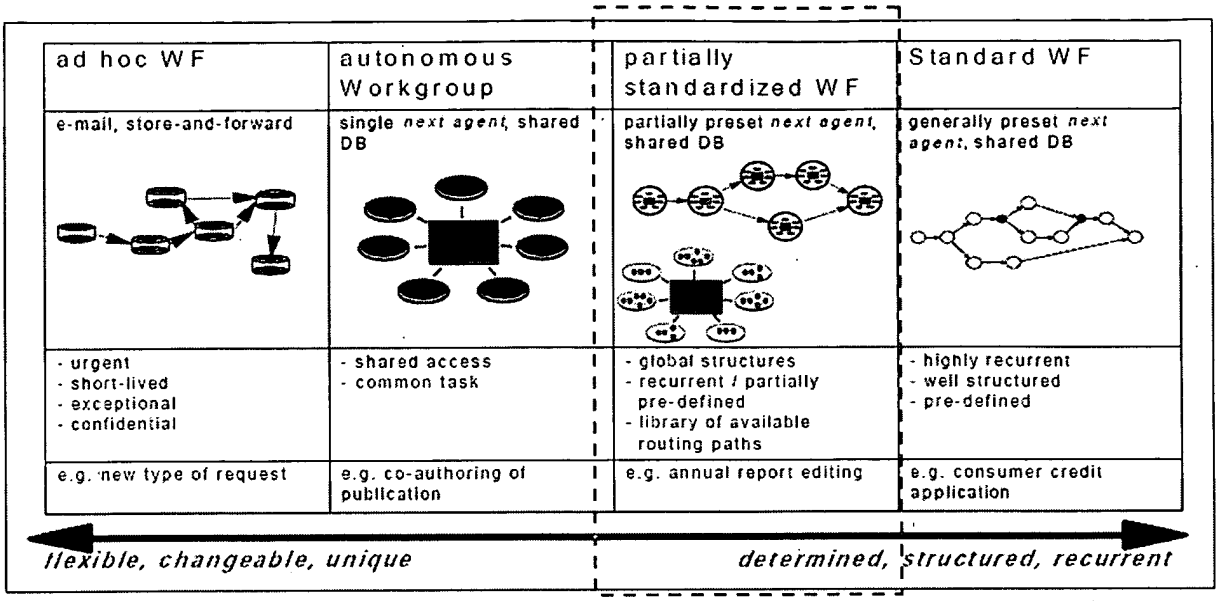


Figure 2-5 [Scaleable degree of office automation] (cp. [Nastansky/Hilpert 1993])

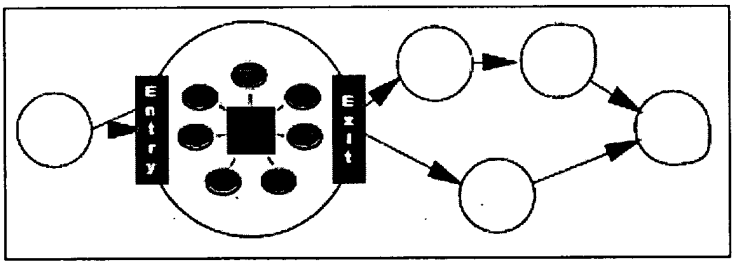


Figure 2-10 [Team task integrated with predefined workflow]

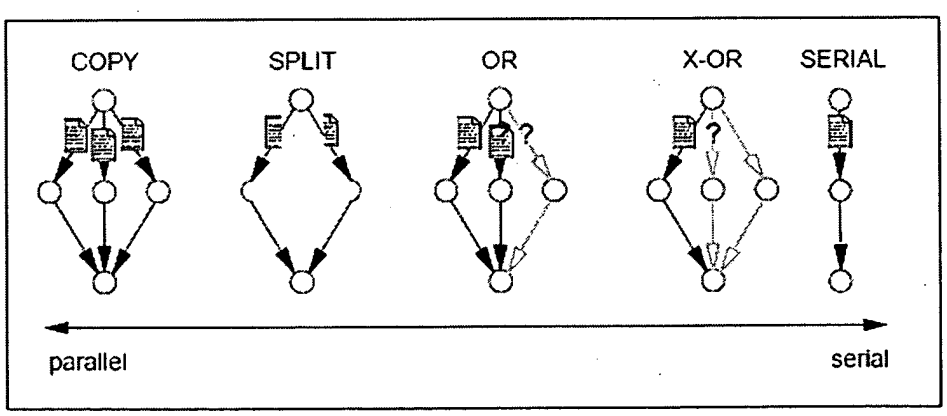
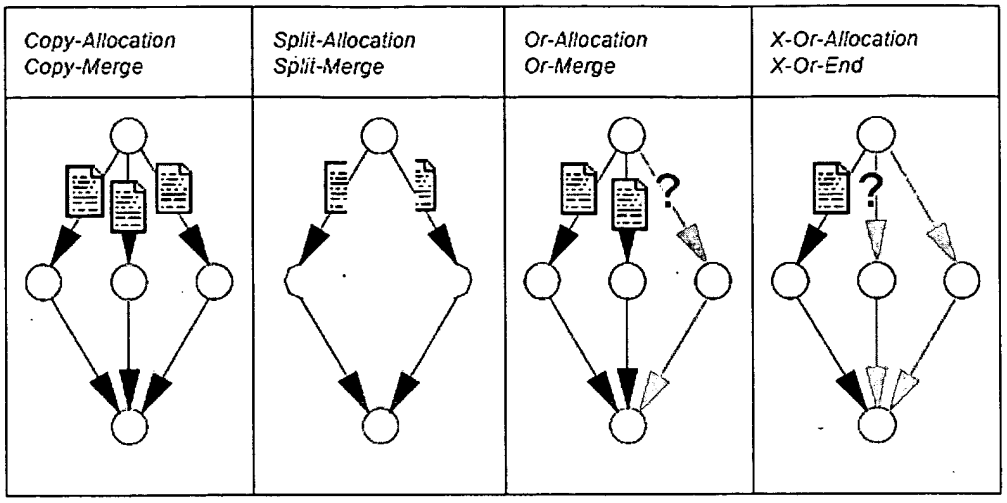


Figure 4-4 [Routing primitives]



Figur 4-6 [Routing primitives for flow control representation]

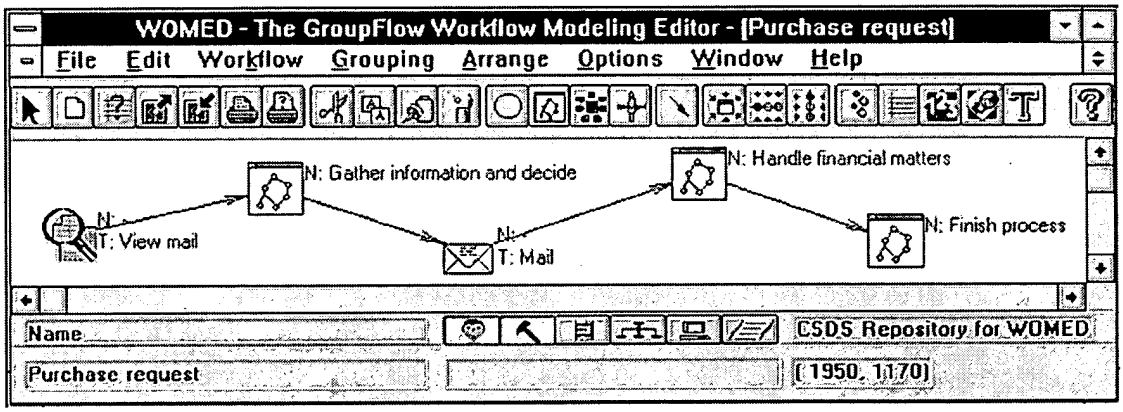


Figure 5-10 [Top-down workflow modelling]

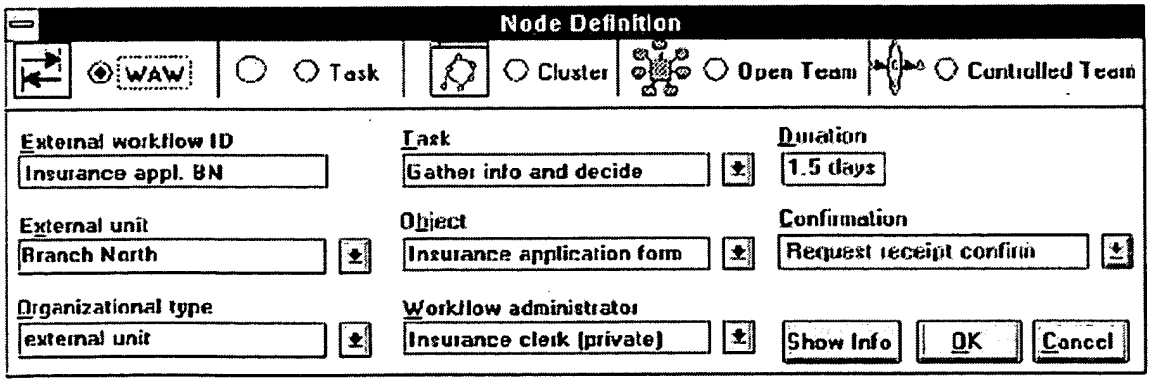


Figure 5-13 [WAW node specification]

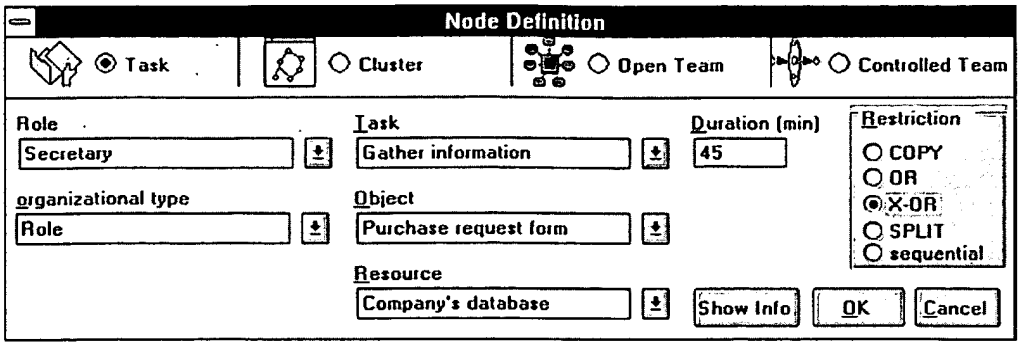


Figure 6-5 [Specification of the first step in the purchase request workflow]

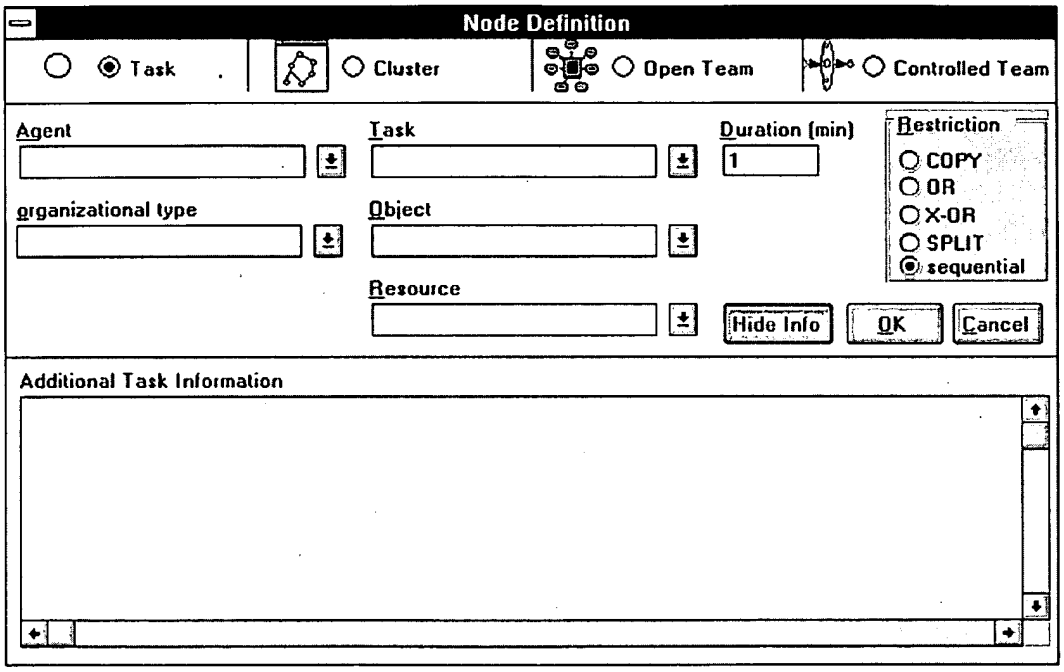


Figure 1: Figure on Page 129

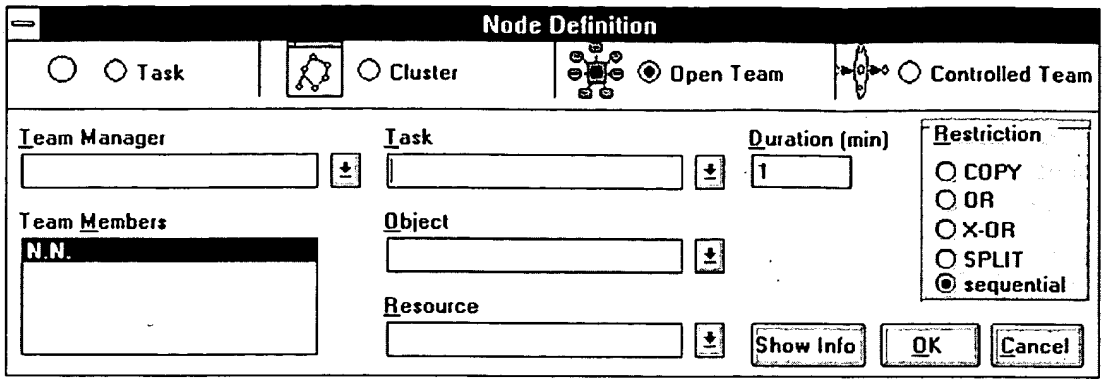


Figure 2: Figure on Page 130, Open Team Node Definition Dialog Box

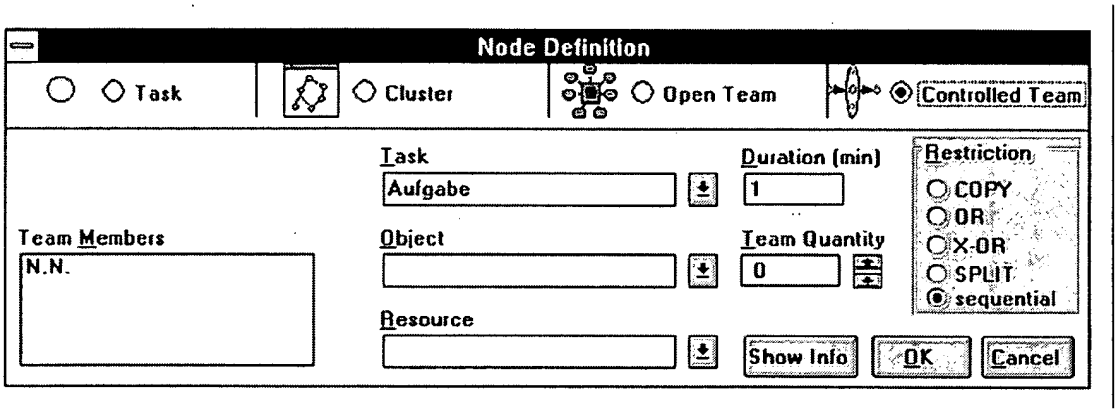


Figure 3: Figure on Page 130, Controlled Team Node Definition Dialog Box

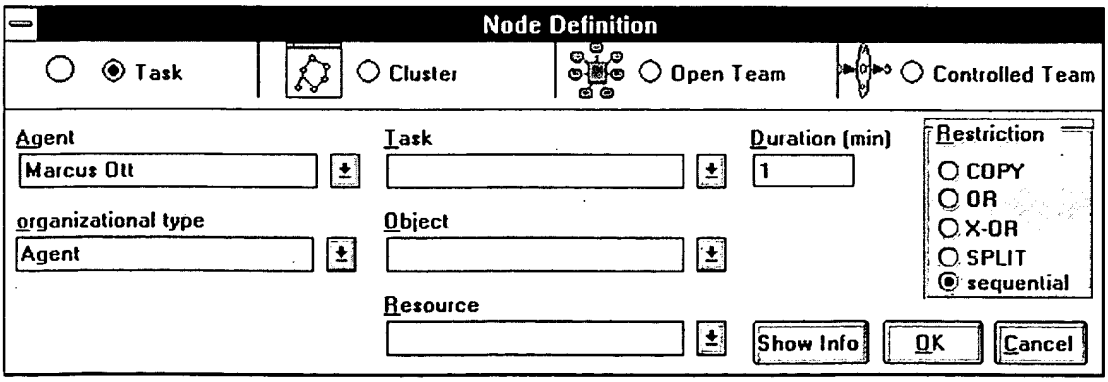


Figure 4: Figure on Page 130, Node/Task Definition Dialog Box

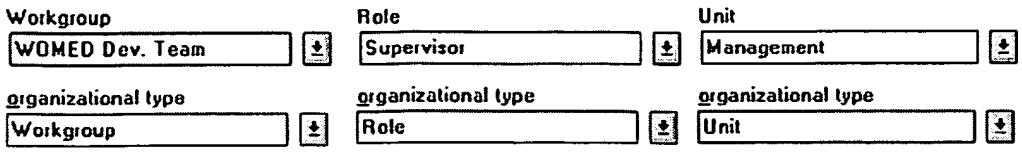


Figure 5: Dialog Boxes, Page 131

Regarding Claim 81 Ott teaches a workflow system and method further comprising selecting multiple sub-routes to be inserted into the composite route and executed in parallel (Bullet 2, Page 28; Number 2 Parallel Route, Pages 44-46; Figures 4.4, 4.6, 7.2).

Regarding Claim 83 and 97 Ott teaches a workflow system and method further comprising defining a set of (local) users and wherein the adaptive node further comprises a user (agent, workgroup, team, role, organization) selection function to specify a user for a node in the selected sub-route (open team task, controlled team task, task assignment rules; Bullet 1, Page 27; Paragraph 1, Page 43; Paragraph 1, Page 46; Paragraphs 1-2, Page 74; Paragraph 2, Page 102; Figure 5, above).

Regarding Claims 84 and 91 Ott teaches a workflow system and method wherein the (local) users are defined by selected users from a set of users where the selection criteria includes the composite route, user role (Section 4.43 Role, Page 57), selected sub-route and node or user organization level (Section 4.4, Page 53; Bullet 3, Page 27) and wherein the adaptive node provides a user selection function wherein users specify

a user for a sub-route node (Bullet 1, Page 27; Bullets 3, 9, Page 28; Paragraph 1, Page 43; Paragraph 1, Page 46; Paragraphs 1-2, Page 74; Paragraph 2, Page 102; Figures 5.4, 6.5; Figures on Pages 129-131).

Regarding Claims 85, 92 and 98 Ott teaches a workflow system and method wherein the set of (local) sub-routes are selected from the sub-route library wherein the selection criteria includes the composite route, customer request, site, sub-route function *or* user organization level (Section 4.4, Page 53; Bullet 3, Page 27; Paragraph 2, Page 102; Figure 5 above).

Regarding Claims 86 and 93 Ott teaches a workflow system and method wherein the local sub-route includes an adaptive node (Bullet 6, Page 29; Paragraph 2, Page 40; Paragraph 1, Page 42; Paragraph 1, Page 71; Paragraphs 1-2, Page 74; Paragraph 1, Page 82; Paragraph 3, Page 83; Paragraph 1, Page 90; Figures 5.10-5.13).

Regarding Claims 87, 94 and 99 Ott teaches a workflow system and method further comprising a sub-route modification function to modify sub-routes and store them in the sub-route library (Paragraph 1, Page 2; Paragraph 2, Page 15; Last Paragraph, Page 16; Bullets 3-4, Page 26; Paragraph 2, Page 40; Last Paragraph, Page 162; Paragraph 2, Page 105; Figure on Page 114; Page 126).

Regarding Claim 88 Ott teaches a workflow system and method wherein the adaptive node provides a sub-route assignment to an external event, including a button on a screen, wherein the external event causes the assigned sub-route to be inserted and activated (copy, insert, push button, toolbar; Pages 124-126; Figures 5.10, 6.1).

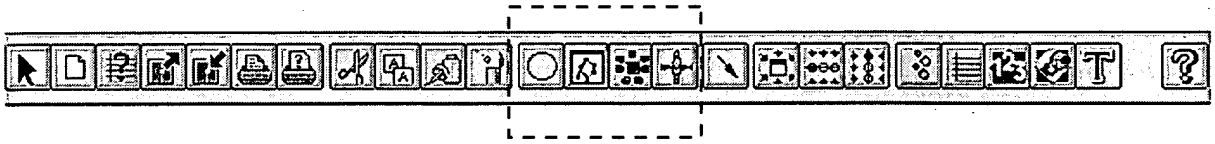


Figure 6: Figure on Page 124

Regarding Claim 89 Ott teaches a system and method for generating a workflow route in real-time from predefined workflow sub-routes comprising:

- defining and storing a set of local sub-routes (sub-workflows, sub-templates, modules) in a library (; Paragraph 1, Page 2; Paragraph 2, Page 15; Last Paragraph, Page 16; Bullets 3-4, Page 26; Paragraph 2, Page 40; Last Paragraph , Page 162; Paragraph 2, Page 105; Figure on Page 114) wherein each local sub-route comprises a sequence of nodes to perform a customer request (Section 2.22 Semi structured Processes, Pages 15-16; Figures 2.8, 6.8);

- defining and storing a set of (local) users (agents, workgroups, teams, organizations) in a library wherein each local user *can be* assigned a node in a selected local sub-route (open team task, controlled team task, task assignment rules; Bullet 1, Page 27; Paragraph 1, Page 43; Paragraph 1, Page 46; Paragraphs 1-2, Page 74; Paragraph 2, Page 102; Figure 5, above);

- defining a composite route (workflow) comprising initial and final nodes wherein the initial node is an adaptive node assigned to a (key) user (e.g. team manager, open team task) and provides a sub-route selection function (Paragraph 1, Page 16; Paragraph 1, Page 41; Paragraph 1, Page 71; Paragraphs 1-2, Page 74; Figures 2.10, 5.4);

- executing the composite route in the workflow starting with the initial adaptive node wherein the user selects an appropriate sub-route from a library of sub-routes (tasks, nodes, templates, modules) using the sub-route selection function (Paragraph 1, Page 90; Paragraph 1, Page 16; Paragraph 2, Page 40; Figures 5.4, 6.5; Figures on Pages 129-131);

- automatically modifying the composite route, by the adaptive node, in response to the user's selection by inserting a copy of the selected sub-route into the composite route and connecting the end of the selected sub-route to the final node of the composite route (copy, copy-allocate, copy-merge; Bullet 3, Page 26; Bullet 6, Page 29; Paragraph 1, Page 42; Last Paragraph, Page 44; Paragraph 1, Page 76; Last Paragraph, Page 77; Figure 6-1); and

- executing the selected sub-route until the composite route's final node is performed (Section 2.2, Pages 15-16; Section 6 Examples, Pages 88-96).

Regarding Claim 95 Ott teaches a method for generating in real-time a workflow route from predefined workflow sub-routes comprising:

- defining and storing a set of local sub-routes in a sub-route library (Paragraph 1, Page 2; Paragraph 2, Page 15; Last Paragraph, Page 16; Bullets 3-4, Page 26; Paragraph 2, Page 40; Last Paragraph , Page 162; Paragraph 2, Page 105; Figure on Page 114)) wherein at least one local sub-route comprises a first adaptive node that provides a sub-route (task, node, module) selection function (Section 2.22 Semi structured Processes, Pages 15-16; Paragraph 1, Page 16; Paragraph 2, Page 40; Figures 2.8, 6.8; Figures on Pages 129-131) and a user selection function (open team task, controlled team task, task assignment rules; Bullet 1, Page 27; Paragraph 1, Page 43; Paragraph 1, Page 46; Paragraphs 1-2, Page 74; Paragraph 2, Page 102; Figure 5, above) and a final node (Paragraph 1, Page 16; Paragraph 1, Page 41; Paragraph 1, Page 82; Figures 2.10, 5.4);

> "The specification of group and organisational aspects of a task can take place as follows: the workflow author (the modeler of a workflow) specifies the organisational aspects of a workflow and its tasks. He/she determines the requirements for such tasks, formulates the precedency structure and specifies and decomposes tasks as required. A task can be specified either partially or completely by the workflow author. Specific tasks are associated with specific roles and units in the organisation, while team task specification is done rather vaguely. The author indicates entry and exit points for information objects going to and coming from the team (refer to chapter 2, figure 2-10), but how task execution is done in detail is open to the group. Normally this entry point (and possibly also the exit point) represents a team manager who can also be appointed by the workflow author beforehand.
>
> Provided that the team has the appropriate access rights, it can add its own individual task specifications by completing and/or modifying a task or by implementing their own task specifications in their group workflow environment. As long as the fixed interface points remain the same, task specification by a group may further decompose tasks. In general, teams are

allowed to customise a task specification to suit their own work requirements, provided such customisation does not violate any requirements established by the workflow author." (Last Paragraph, Page 70; Paragraph 1, Page 71)

- defining and storing a set of local users (role, team, workgroup, organization) wherein each local user can be assigned to a node in a selected local sub-route to perform locally a customer request (Bullet 1, Page 27; Bullets 3, 9, Page 28; Paragraph 1, Page 43; Paragraph 1, Page 46; Paragraphs 1-2, Page 74; Paragraph 2, Page 102; Figures 5.4, 6.5; Figures on Pages 129-131);

- defining a composite route comprising an initial node and final node wherein the initial node is a second adaptive node assigned to a key user (e.g. team manager) and provides a sub-route selection function (open team tasks/nodes, entry/exit points; Paragraph 1, Page 16; Paragraph 1, Page 41; Paragraph 1, Page 71; Paragraphs 1-2, Page 74; Figures 2.10, 5.4; Figures on Pages 129-131);

- executing the composite route in the workflow beginning with the composite route's initial node, the adaptive node wherein the (key) user selects an appropriate second sub-route from the sub-route library (Paragraph 1, Page 90; Paragraph 1, Page 16; Paragraph 2, Page 40; Figures 5.4, 6.5; Figures on Pages 129-131);

- the second adaptive node automatically modifies the composite route in the response to the (key) user's selection by inserting a copy of the selected second local sub-route into the composite route and connecting the end of the selected second local sub-route to the final node of the composite route (copy, copy-allocate, copy-merge; Bullet 3, Page 26; Bullet 6, Page 29; Paragraph 1, Page 42; Last Paragraph, Page 44; Paragraph 1, Page 76; Last Paragraph, Page 77; Figure 6-1);

- executing the selected second local sub-route where the user of the first adaptive node selects an appropriate first local sub-route from the sub-route library and a user for a node in the selected first local sub-route (Bullet 1, Page 27; Bullets 3, 9, Page 28; Paragraph 1, Page 43; Paragraph 1, Page 46; Paragraphs 1-2, Page 74; Paragraph 2, Page 102; Figures 5.4, 6.5; Figures on Pages 129-131);

- the first adaptive node automatically modifies the second sub-route in the response to the user's selection by inserting a copy of the first local sub-route into the second sub-route, assigning the selected user to the node in the selected first lcaol sub-route, and connecting the end of the selected first local sub-route to the final node of the second sub-route (copy, copy-allocate, copy-merge; Bullet 3, Page 26; Bullet 6, Page 29; Paragraph 1, Page 42; Last Paragraph, Page 44; Paragraph 1, Page 76; Last Paragraph, Page 77; Figure 6-1);

- executing the first sub-route until the composite route's final node is performed (Section 2.2, Pages 15-16; Section 6 Examples, Pages 88-96).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 82, 90 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ott, Marcus, Conceptual Design and Implementation of a Graphical Workflow-Modeling Editor in the Context of Distributed Groupware Databases (1994) as applied to claims 80-81, 83-89, 91-95 and 97-99 above and further in view of Ivanov, U.S. Patent No. 5,706,452.

Regarding Claims 82, 90 and 96 Ott teaches a workflow system and method wherein the final node of the composite route provides a join function including "and join" (all sub-routes complete) and "or join" (one sub-routes completes; Bullet 2, Page 28; Pages 44-46; Table on Page 152, Rows 2-4; Figures 4.4, 4.6, 7.2).

Ott doe does not expressly teach majority (majority of sub-routes complete) or weighted joins (each sub-route is assigned a positive or negative weight such that the composite route completes when the sum of the weights of the completed sub-routes exceeds a pre-determined value) as claimed.

Ivanov teaches a plurality of parallel synchronization techniques/approaches including majority joins (quorum, voting), weighted (e.g. one reviewer's review is weighted more than others), fuzzy, "and joins", "or joins" and hybrid joins (Column 4, Lines 55-68; Column 6, step e; Column 13, steps a, b; Column 14 steps a, b) in an analogous art of workflow management for the purpose of synchronizing parallel workflow nodes/tasks (Column 8, 25-52).

It would have been obvious to one skilled in the art at the time of the invention that the workflow management system and method as taught by Ott with its utilization of multiple parallel routing primitives and rules would have benefited from utilizing the plurality of parallel task synchronization techniques/methods including majority joins and weighted joins in view of the teachings of Ivanov; the resultant system and method enabling users to synchronize parallel workflow nodes/tasks (Ivanov: Column 8, 25-52).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Chaar et al., U.S. Patent No. 5,960,404, teach a workflow management system and method.

- Okita et al., U.S. Patent No. 6,225,998, a system and method for defining and executing workflows utilizing predefined sub-workflows and workflow primitives.

- Petchenkine et al., U.S. Patent No. 6,380,951, teach a workflow management system and method for generating workflows using predefined elements.

- Koulopoulos, The Workflow Imperative (1995), teaches a plurality of well known workflow management methods including the defining and storing predefined workflows in a library (procedure libraries, palettes) as well as the use of graphical workflow editors to compose workflows.

- ActionWorkflow Process Builders User's Guide (1996), teaches a system and method for composing and executing workflows comprising: user's selecting predefined workflows (components, templates, routes, scripts) from a workflow library, assigning predefined uses (roles, participants) from a list of predefined users to workflow components/tasks, enabling users to adapt the workflow during its execution via templated choices, adaptive workflows (phased) having initial and final nodes (phases) and executing and joining parallel workflows.

- Using the WFT Development Environment (1998), teaches a workflow management system and method wherein workflows are generated using pre-defined

workflow templates and includes well known parallel workflow/tasks join (junction) methods.

- Teamware Flow 3.1 User's Guide (2000), teaches a commercial workflow management system and method wherein users define workflows via a sub-route selection function.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Scott Jarrett
Asst. Examiner
March 27, 2006